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The Prediction of Psychotherapy Success by Outcome Expectations in Inpatient Psychotherapy

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Outcome expectations reflect patients' prognostic beliefs about the consequences of engaging in treatment [1]. Positive outcome expectations have long been considered an important component of the therapeutic process and a common factor in successful psychotherapy [2]. Empirical studies provide consistent evidence in support of this view [3]. However, expectations are not only directed to positive outcomes (hope of improvement), but also to potential negative outcomes (fear of change and of side effects) [4, 5]. In psychotherapy research up to now, the concept of outcome expectations was typically used to denote the potential benefits of treatment, but rarely to denote negative side effects [6].

Consequently, the aim of this study was to investigate the relationship between positive and negative outcome expectations and treatment outcome in psychotherapy inpatients. We hypothesized first that both hope of improvement and fear of change are related to psychological functioning (symptom distress, well-being and incongruence) at intake, and second, that hope of improvement and fear of side effects predict therapy outcome. Incongruence denotes the subjective experience of insufficient motive satisfaction in interaction with the environment.

We interviewed 159 German applicants for an intensive cognitive-behavioral inpatient treatment. The treatment was tailored to the diagnosed disorders for each patient. The mean age of the subjects was 31.24 years (SD = 13.6, range 15–72 years); 108 participants were women (66.7%). All patients gave informed consent for using their data for research purposes. During a day of assessment, applicants underwent diagnostic interviews and completed self-report measures including: the Symptom Checklist-90-R [7], the short version of the World Health Organization's Quality of Life Measure [8], the Patients' Therapy Expectation and Evaluation [9], and the short version of the Incongruence Questionnaire [10], measuring insufficient motive satisfaction. Participants completed self-report measures again after treatment, as well as 6 weeks (follow-up 1, FU1) and 1 year (FU2) later. We included all patients who had completed a posttreatment questionnaire (average treatment duration: 34.85 days, range 8–126 days). Principal diagnoses were assessed using a structured interview for DSM-IV [11]. Principal diagnoses were: 27.0% anxiety disorder (n = 43), 27.0% eating disorder (n = 43), 26.4% affective disorder (n = 42),

13.8% obsessive-compulsive disorder (n = 22), and 5.7% alcohol dependence (n = 9). Therapists were blinded to research questions.

Hope of improvement and fear of change at pretreatment were negatively correlated (table 1). Hope of improvement was negatively correlated with lacking motive satisfaction (incongruence), whereas hope was positively correlated with quality of life. Interestingly, hope was not significantly correlated with symptom distress. Correlations were in the opposite direction for fear of change. However, we found significantly positive correlations for symptom distress and incongruence. Psychological well-being correlated negatively with fear of change.

We tested the prediction of treatment outcome by hope of improvement and fear of change at baseline, using separate hierarchical regression analyses for FU1, and FU2. Symptom distress was the criterion variable in each regression; initial symptom distress was included as a covariate. In the 1st step, initial levels of symptom distress accounted for 36% of variance in symptom distress at posttreatment. In the 2nd step, hope and fear added another 10% of explained variance ($\Delta F_{2, 155} = 13.44$, $p < 0.01$). Whereas there was a significant main effect of hope ($\beta = -0.27$, $t = -4.38$, $p < 0.01$), fear did not explain an extra variance ($\beta = 0.09$, $t = 1.41$, n.s.). Six weeks after treatment (FU1), hope and fear explained an additional 3% of variance ($\Delta F_{2, 128} = 3.16$, $p < 0.05$). Whereas hope was again a significant predictor ($\beta = -0.15$, $t = -2.12$, $p < 0.05$), fear was not ($\beta = 0.05$, $t = 0.71$, n.s.). One year after treatment (FU2), hope and fear no longer added variance in the prediction of posttreatment symptom distress ($\Delta F_{2, 74} = 0.63$, n.s.).

In a post-hoc moderation analysis, the interaction between pretreatment symptom distress and hope explained an additional 2% of the variance ($\Delta F_{1, 155} = 5.18$, $\beta = -0.14$, $p < 0.01$) over and above the 45% explained by distress and hope alone ($p < 0.01$). Thus at high levels of symptom distress, stronger hope for improvement predicted less symptom distress after treatment ($\beta = -0.19$, $t = 5.40$, $p < 0.01$), whereas at low levels of symptom distress, hope for improvement was not predictive ($\beta = -0.08$, $t = 1.86$, n.s.).

In sum, our results indicate that status at intake (symptoms, well-being, motive-satisfaction) is related to both positive and negative outcome expectations. Whereas cross-sectionally fear is associated with well-being, incongruence and symptom distress, hope is related to well-being and incongruence, but not to symptom distress. Although the level of positive expectations at intake is predictive of treatment outcome, negative expectations are not. Positive expectations are predictive of outcome particularly in patients with high levels of symptom distress.

The importance of positive outcome expectations in psychotherapy has been shown theoretically [12–14] and empirically [3]. In our study, differential relations with symptom distress supported the proposed distinction between positive and negative outcome expectations. However, the finding that fears do not pre-

Table 1. Bivariate correlations among measures, and descriptive statistics at pretreatment

	1	2	3	4	5	6	7
(1) Hope	–	–0.30*	–0.10	0.31*	–0.23*	–0.32*	–0.10
(2) Fear		–	0.19*	–0.21*	0.27*	0.23*	0.24*
(3) SCL			–	–0.74*	0.62*	0.56*	0.55*
(4) QOL				–	–0.72*	–0.73*	–0.57*
(5) INK					–	0.89*	0.91*
(6) INK-Ap						–	0.61*
(7) INK-Av							–
Mean	3.75	2.33	1.20	11.41	3.23	3.47	3.00
SD	0.74	1.07	0.64	2.38	0.63	0.66	0.74

n = 159. *p < 0.01 (two-tailed). Hope = Hope of improvement; Fear = Fear of change; SCL = Symptom Checklist; QOL = quality of life; INK = incongruence; INK-Ap = incongruence regarding approach goals; INK-Av = incongruence regarding avoidance goals.

dict outcome does not necessarily imply that negative outcome expectations are unimportant. On the contrary, fears may be important change targets that may lose their predictive force within the therapeutic change process [15]. Generally, therapists are well advised to assess outcome expectations at intake.

The present study has several shortcomings. Intake chronicity, previous treatments, or remission after treatment were not assessed. In addition, only completer data were analyzed, which along with a considerable loss to follow-up, warrants caution when interpreting the long-term impacts of outcome expectations. If the dropouts had more negative expectations at the outset compared to completers, the high dropout rate may have led to underestimating the impact of negative expectations. Future studies should analyze dropouts, determinants of outcome expectations, impact on treatment process, and changes in outcome expectations over therapy. The enhancement of positive expectations in severely distressed patients promises to be a worthwhile avenue for future research.

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